



Department of Public Works
111 Maryland Avenue, Rockville, MD 20850-2364

GENERAL WATER AND SEWER NOTES

1. The Contractor must contact the following prior to beginning work: **City Department of Public Works at 240-314-8500, City Transportation Division at 240-314-8500 (traffic signal locates and streetlight locates), City Utilities Section at 240-314-8567, and Miss Utility at 1-800-257-777, 48 hours before excavating.**
2. All water and sewer construction shall be in accordance with the latest General Specifications and Standard Details of the WSSC and/or the City of Rockville unless otherwise noted.
3. Information concerning existing underground utilities was obtained from available records. The contractor must determine the exact location and elevation of existing utilities by digging test pits by hand at all utility crossings well in advance of trenching.
4. Maintain minimum one-foot vertical clearance between all water and sewer crossings and other utilities. If clearance is less than shown on this plan, contact the City Department of Public Works Engineer before proceeding with construction.
5. Trench backfill shall be compacted to 95% per AASHTO T-99, Method C and compacted with correct moisture content per WSSC Standard Specifications, Section 02200. Contractor shall supply the City Inspector with certified compaction test results from an independent Geotechnical Engineer who is certified by Maryland.
6. All trenches shall be backfilled at the end of the day, all equipment secured and the area left in a safe condition.
7. The public road utility patch shall be in accordance with City Standard Detail #60 or #60A. All trenches in public streets are to be filled with compacted CR-6 or recycled concrete to subgrade. Mill and overlay requirements (see City Standard Detail #50) at street cuts shall be determined by the Chief, Contract Management Division.
8. The contractor must maintain all sediment control devices and see that all points of construction ingress and egress are protected as directed by the City Inspector to prevent tracking of mud and dust onto public ways or affecting adjacent areas.
9. Traffic must be maintained on all roadways within the construction area as directed by the Chief, Contract Management Division. No lane closure shall be permitted between 7:00-9:00 A.M. or 3:30-6:00 P.M. Monday through Friday. Deployment and design of all traffic control devices shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). If required, traffic control plans shall be reviewed and approved by the Chief, Traffic and Transportation Division.

10. Sheeting and shoring shall be the total responsibility of the Contractor. Drawings shall be certified by a Maryland professional engineer and submitted to the City Inspector for informational purposes only.
11. Valves located on the existing public system shall not be operated by the Contractor. Requests to operate valves must be submitted 48 hours in advance.
12. The applicant is required to obtain permits from all Federal, State and/or local permit authority having jurisdiction over any phase of construction associated with the installation of this system.
13. Abandonment of water house connections and sewer house connections shall be made at the main line as directed by the City Inspector. To abandon water house connections, valves and corporations must be removed at the main and tap hole plugged with a brass plug. To abandoned sewer house connections, tees or saddles must be removed at the main and new pipe will be sleeved in.
14. Abandonment of public water and sewer mains shall be made as directed by the City Inspector. All abandoned utility mains must be completely filled with lean mix concrete or flowable fill and must be disconnected from the utility system which will remain active.
15. Upon completion of construction, the applicant shall provide 3 sets of red lined "as-built" prints for review and approval to the Public Works Department, Attention: Engineering Division. Upon receipt of written approval and prior to release of the permit, the applicant shall provide to the City the original "as-built" mylar drawings (24" x 36") with approval stamp and As-Built Certification, certified by a Professional Engineer.

Connection to Existing Water System: The connection shall be made at hours determined by the City in order to cause the least disturbance to existing customers. The contractor shall notify the Contract Manager in writing at least five (5) days prior to making the connection and submit for approval a schedule and method to complete the proposed connection. The contractor shall also notify the **City Utilities Section at 240-314-8567** at least three (3) days in advance of scheduled shutdown to arrange for valve operation. The City must provide a minimum of 48 hours notice to affected properties. The connection will then be made at the designated time in accordance with the directions of the Chief, Contract Management Division. Test pit information on existing crossings must be provided a minimum of 48 hours prior to construction.

Valves: Valves shall conform to the latest AWWA Specifications and shall be clockwise turn to close, mechanical joint. All valves 16 inches and over shall be Muller/Pratt butterfly type. All valves 14 inches and smaller shall be resilient seat valves. Valve boxes shall be screw adjustable type with heavy-duty cover.

Fire Hydrants and Fire Hydrant Connections: Fire hydrants shall be set 2 feet behind the face of curb unless otherwise indicated on the drawing. Each hydrant shall be set exactly plumb, at the grade provided, and shall be jointed to the fire hydrant connection at the foot of the barrel. Care shall be taken to place the steamer outlet normal to the street line and any hydrants placed askew shall be reset if required by the City Inspector.

Fire hydrants shall be firmly set in a bed of screened gravel, which shall extend one foot below the bottom of the hydrant and be filled in and around it. The hydrant shall be firmly braced at the back, opposite the inlet pipe. The total amount of gravel used shall be at least 1/3 of a cubic yard. Fire hydrants shall not be blocked.

Fire hydrant connections of 6 inch cement lined ductile iron pipe shall be laid at the points shown on the drawings and shall be extended either to fire hydrants to which they shall be connected or to such points as shall be designated. Fire hydrant connections shall be laid in all particulars in a similar manner to the water mains themselves. All fire hydrant valves are to be tied to the main per WSSC Standard Details.

Fire hydrants shall be Traffic Model Types, which consists of break away bolts, standpipe and couplings. All fire hydrants shall be strapped to the mains per WSSC Standards and shall be painted with two coats of rust-preventive paint, per City Standard colors (Chinese Safety Red, Duron # 12-943-11 and Black, Duron # 12-983-11). The fire hydrants shall be as listed in WSSC General Conditions and Standard Specifications, Section 02660.

Fire hydrants shall have 5-1/4 inch, 3 way (2 hose nozzles and one pumper nozzle), 6-inch diameter mechanical joint inlet connection clockwise turn close, National Standard operating nut.

Water Mains: Materials for all water mains are to be ductile iron class 51. All pipes are to be cement lined, minimum of 1/8 inch thick. The joints are to be U.S. "Tyton Joint" or an approved equal. Water pipe shall be installed in accordance with WSSC Standard Details and Standard Specifications, Section 02660.

Storage: The contractor shall store pipe and materials on site, so as not to damage the materials, and shall maintain such storage areas in a hazard free and safe condition at all times.

Lubricants: Lubricants shall be potable hydrogenated vegetable oil that is insoluble in cold water and does not impart taste or odor. The lubricant shall not contain detergents, soaps or organic solvent either aliphatic or aromatic and shall be certified as nontoxic to humans or other animals. The lubricant shall be of a semi-paste consistency, which will readily stick to the inside of the bell of the pipe when applied by hand. It shall remain in a usable state through the temperature in which water pipe is normally installed.

Water House Connections: Water house connections shall be 1- or 2-inch copper, Type "K" as determined by the Inspection Services Division for service flow demand and fire protection requirements. The connection between main and meter shall be one continuous length. No taps shall be allowed in the last 5 feet of a deadend main. Water meters shall be located 1 foot behind the property line in a grass area. Water meters shall not be located in private driveways or aprons. Yoke angle valves should be compatible with Ford 500 series meter yokes.

Specifications: Unless otherwise authorized in writing by the Engineer or noted on the approved plans and/or noted in the specifications, all work and materials shall conform to the latest Washington Suburban Sanitary Commission General Conditions and Standard Specifications.

Tap, sleeve and valve (T, S & V) assemblies: All T, S & V assemblies are to be hydro-tested and witnessed by the City Inspector at the time of installation.

Cover: All water mains to be installed with minimum 3.5 feet of cover below finished grade or 3.0 feet of cover below finished subgrade.

Blocking: Block all fittings with concrete per plans and Standard WSSC Specifications and Standard Details.

Sewer and Water Main Pressure Tests: The contractor shall accomplish pressure tests in accordance with City Standards and Specifications. Prior to connection to existing water mains, the City will conduct a 24-hour bacterial test.

Material Requirements for Sewer: The City shall accept the following materials for the construction of the main line sewer, except as otherwise specified on the plans:

- a. Concrete sewer main, extra strength with Tyton joints or approved equal.
- b. Ductile iron, Class 51, cement lined minimum 1/8 inch thick with Tyton joints or approved equal, or
- c. Polyvinyl chloride pipe and fittings conforming to ASTM D3034-78, wall thickness SDR 35 with watertight elastomeric gasket joints.

Pipe for sewer house connections shall be 4-inch cast iron soil pipe or 4-inch polyvinyl chloride pipe and fittings as specified above, and shall be connected to the main line by the use of tees.

Flexible gaskets shall be used for connections to precast and existing manholes, and shall be A lock as manufactured by Atlantic Precast Concrete, Inc. or equal.

Mortar used in the installation of A Locks or the filling of any void in manholes walls, inside and out, shall be quick setting, non-shrink such as Octocrete, Speedcrete, Permacrete or equal.

Pipe Installation Requirements: Sewer pipe shall be installed in accordance with WSSC Standard Detail M-8.0 and Standard Specifications, Section 02730. Hydro-hammers may not be used within 3 feet of the top of pipe. Exercise care to insure adequate compaction around structures and prevent damage to pipe at connections to manholes. The contractor shall assist in the compaction testing operation as requested by the City Inspector.

Horizontal deflection of pipe shall be accomplished in accordance with manufacturer's specifications.

Cleanouts: Cleanouts are to be installed on each sewer house connection and be located at the property line, in a grass area. Cleanout caps shall be brass or PVC and have a recessed brass or PVC cap. Provide concrete cleanout blocks on all sewer house connections at bottom of cleanout per WSSC Standard Details.

When drop connections from the building are to be used at the property line cleanout, the "Y" of the cleanout shall be encased per WSSC Standard Details and Standard Specifications.

WebDoc 1/7/05